# Work Order Bid (ID)

CAC Housing Energy Services



## **WORK ORDER INFORMATION**

Work Order Name: WO/80008KN1808/1
Work Order Type: Weatherization
Audit Name: 80008KN1808-Audit

### **CLIENT INFORMATION**

Client ID: 80008KN1808

## **AGENCY INFORMATION**

Agency: Knoxville- Knox County Community Action Agency

Address: (PO Box 51650) 2247 Western Avenue

Knoxville, TN 37950-1650

Agency Phone: (865) 244-3080

Fax: (865) 544-1647

Email Address:

Company Name & License Number:	
Contractor's Signature:	

### **COMMENT**

Mobile Home

Contractor to follow 2006 International Residential Code as adopted by the City of Knoxville or Knox County as applicable.

## Measures

i	Measure	1 Mob	ile Home Belly Repair( 3	50 SF)		Component	ts		. "	Inspecte
С	omment	Repair b	elly with a durable products. Tape not allowed as a	ot such as fastener.	S Tyve NO sta	k. Secure wit aples allowed	h mecha d.	nical		
		Refer to Field Gu	Attachment A-Standards ide.	for Weat	heriza	tion Materials	s and So	utheas	t	
						Estimated			Actual	
ŧ	Material /	Labor	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total
I	Labor		Labor	SqFt	350					
	Construc	tion Mate	Mobile Home Belly Repair	SqFt	350					
			Refer to Attachment A- Standards for Weatherization Materials and Southeast Field Guide.							
0	ther Detail	· · · · · · · · · · · · · · · · · · ·								
					Measur	Sub Total:		] :	Sub Total:	
	Field Note	s:					· · · · · · · · · · · · · · · · · · ·			

Measure 2	General Air Sealing	
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#### Components

In	sp	ec	te	d
	~~	~~	•••	***

Comment Reduce air infiltration with 3 air seals. Each air seal is equal to 100 cfms. It is the responsibility of the contractor to find the air leaks. This is best performed with a Blower Door. Contractor must meet or exceed the targeted #. A house must not be brought below 1500 cfm @ 50 pascals. No CHANGE ORDER for air seals below the targeted #.

"A" Ring, Front Door, Pre 2345 CFM @ 50 pascals. Target is 2045 CFM @ 50 PA

weatherstrip d1
Remove old weatherstripping before installing new weatherstripping.
Weatherstrips must be one solid
piece. Refer to Appendix A- Standards for Weatherization Materials and
Southeast Field Guide.

Mastic 8 supply boots

Liquid white Mastic to be applied to entire inside of boot to seal all seams. Top of boot where it meets ceiling, wall

or subfloor to be caulked or foamed. Boots to be insulated on outside of boot to R-8. This is

best performed with 2-part close cell foam. No changes allowed. Refer to Appendix A- Standards for

Weatherization Materials and Tennessee Weatherization Field Guide.

NOTE: When post audit is performed, all boots must be below 1 pascal with none over 3 pascals and not

more than 3 boots over 1 pascal but less than 3 pascals.

Living RoomSupply4.5

Living RoomSupply4.1

Bdrm1Supply3.1

Bdrm2Supply2.6

Bdrm3Supply4.3

Bath1Supply2.1

Bath2Supply3

KitchenSupply3.7

					Estimated			Actual		
#	Material / Labor	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total	
1	Insulation	mastic supply boot	Each	1						
1	Miscellaneous Su	labor	Each	1						
2	Doors	waetherstrip	Each	1						

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		labor	Each	1			] [		
Other De	tail	<b></b>		3 t					
	* * * * * * * * * * * * * * * * * * * *								
				] [			][		
				Measur	e Sub Total:			Sub Total:	
Field No	otes:			11000 1,0 %					
Measur	re 3 Ligh	nting [Kitche][2]			Componen	ts L4			Inspected
Commer	<i>nt</i> Lighting								
	stores, i Append	scent. Inform customers municipal waste departm ix A- Standards for Weat	ents, or of	her red	cycling organ	nizations.	Refer	to	
		rization Field Guide.			Estimated			Actual	
# Materia	I/Labor	rization Field Guide.  Description / Comment	Units	Qty			Qty	Actual Unit Cost	Total
			<i>Units</i> Each		Estimated		Qty		Total
1 Lighting		Description / Comment		Qty	Estimated		Qty		Total
1 Lighting	g	Description / Comment Compact Fl13 Watt	Each	Qty 2	Estimated		Qty		Total
1 Lighting 2 Labor	g	Description / Comment Compact Fl13 Watt	Each	Qty 2	Estimated		Qty		Total
1 Lighting 2 Labor	g	Description / Comment Compact Fl13 Watt	Each	Qty 2	Estimated		Qty		Total
1 Lighting 2 Labor	g	Description / Comment Compact Fl13 Watt	Each Each	Qty 2 2	Estimated				Total
# Materia. 1 Lighting 2 Labor Other Det	g ail	Description / Comment Compact Fl13 Watt	Each Each	Qty 2 2	Estimated Unit Cost			Unit Cost	Total

	Measure 4	Ligh	ting [Bathro][1]			Componen	ts L1			Inspected	
Lighting Replace incandescent light bulb with compact fluorescent bulb equal to the incandescent. Inform customers about proper recycling of fluorescent bulbs by stores, municipal waste departments, or other recycling organizations. Refer to Appendix A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide.  Estimated Actual											
					× 1111	Estimated			Actual		
#	Material / La	bor	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total	
1	Lighting		Compact Fl13 Watt	Each	1						
2	Labor		Compact Fl13 Watt	Each	1						
2	ther Detail			E		: [		, L			
				ı	Measur	e Sub Total:			Sub Total:		
	Field Notes:										

	Measure	5	Ligh	ting [Living][3]			Componer	its L5			Inspected
C	Comment	Lig Re inc sto Ap	ande res, r pendi	incandescent light bull scent. Inform customer nunicipal waste departr x A- Standards for Wea rization Field Guide.	s about pro nents, or ot	per red her red	cycling of flu cycling orga	orescent nizations.	bulbs b	y to	
							Estimated			Actual	
#	Material /	Lab	or	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total
1	Lighting			Compact Fl13 Watt	Each	3					
2	Labor			Compact Fl13 Watt	Each	3					
<b>(</b>	Other Detai	<u> </u>					· · · · · · · · · · · · · · · · · · ·		] f	<i></i>	
						Measur	e Sub Total:		]	Sub Total:	
	Field Note	s:									

weasure t	Lignti	ng [Bearoo][2]			Componen	ts L/			mspecte
F ii s <i>P</i>	ncandeso tores, mo oppendix	ncandescent light bulb cent. Inform customers unicipal waste departm A- Standards for Weat zation Field Guide.	about propents, or ot	oer red her red	cycling of fluc cycling organ	orescent nizations	bulbs b		
					Estimated	•		Actual	
# Material / L	abor	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total
l Lighting	,	Compact Fl13 Watt	Each	2					
2 Labor	,	Compact Fl13 Watt	Each	2					
Other Detail					l [] [		[	1	
							][]		
			i	Measur	e Sub Total:		] ;	Sub Total:	
Field Notes									

Measure	7	Ligh	ting [Utilit][1]			Componen	<b>ts</b> L3			Inspected
Comment	Lig Rep inconstor Stor App	andes res, n cendi	incandescent light bulb scent. Inform customers nunicipal waste departm x A- Standards for Weat ization Field Guide.	about pro ents, or ot	per red her red	cycling of fluc cycling organ	bulbs b			
						Estimated			Actual	
# Material /	Lab	or	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total
1 Lighting			Compact Fl13 Watt	Each	1					
2 Labor			Compact Fl13 Watt	Each	1					
Other Detail	1									
-										
					Measur	e Sub Total:		] ;	Sub Total:	
Field Note	es:									

1	weasure o L	ignting [Bathro][1]			Componen	is lo			inspected
C	incan store: Appe	ing ace incandescent light bulb descent. Inform customers s, municipal waste departm ndix A- Standards for Weat herization Field Guide.	about pro ents, or ot	per red her red	cycling of fluc cycling organ	orescent nizations.	bulbs b		
					Estimated	,		Actual	
#	Material / Labor	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total
1	Lighting	Compact Fl13 Watt	Each	1				``	
2	Labor	Compact Fl13 Watt	Each	1					
0	ther Detall							p. 2000 1. 2000 1. 2000 1. 2000 1. 2000 1. 2000 1. 2000 1. 2000 1. 2000 1. 2000 1. 2000 1. 2000 1. 2000 1. 200	
				L			J []		
			ļ	Measur	e Sub Total:		] :	Sub Total:	
	Field Notes:								

I	Measure	9	Light	ing [Bedroo][1]	•		Componen	<i>ts</i> L8			Inspected
С	omment	Ligi Rep inca stor App	andes res, m pendix	cent. Inform customers nunicipal waste departn	s about prop nents, or ot	compact fluorescent bulb equal to the it proper recycling of fluorescent bulbs k or other recycling organizations. Refer ation Materials and Tennessee					
							Estimated	·		Actual	
#	Material /	Lab	or	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total
1	Lighting			Compact Fl13 Watt	Each	1					
2	Labor			Compact Fl13 Watt	Each	1		,			
2	other Detai	<u> </u>	················				) [		1		
											,
					1	Measur	e Sub Total:			Sub Total:	
	Field Note	es:									

Measure 10 Lighting [Bedroo][2]				Componen	ts L2			Inspected		
C	j i 8	ncandes stores, m Appendix	incandescent light bulb cent. Inform customers nunicipal waste departm c A- Standards for Weat ization Field Guide.	about proj ents, or ot	oer red her red	cycling of fluc cycling organ	orescent nizations.	bulbs b		
						Estimated			Actual	
#	Material / L	.abor	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total
1	Lighting		Compact Fl13 Watt	Each	2					
2	Labor		Compact Fl13 Watt	Each	2			n de de constant d		
(	ther Detail		•							
L					l					
				i	Measur	e Sub Total:			Sub Total:	
	Field Notes	<b>;</b>								

Measure 11 Replace Heating [Electric]	Components	Inspected
Comment		
Includes labor cost. Must be installed b	y a licensed mechanical contractor.	
Must perform an ACCA Manual J and s	· · · · · · · · · · · · · · · · · · ·	
Amana or Goodman 13 Seer Split Hea	t Pump, 10KW emergency heat. Size	is

approximately 2 ton. Final size will be determined by the Director of Housing. If size on ACCA Manual J is different from this write up, contact CAC before

Install thermostat. Must educate client on operation of thermostat.

install for approval.

Contractor to provide warranty information to client at inspection.

					Estimated	<b>!</b>		Actual	
#	Material / Labor	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total
1	Heating Equipmen	Replacement Heat Pump Split System	Each	1					
2	Labor	labor	Each	1					
C	Other Detail								
				Measur	e Sub Total:			Sub Total:	
ſ	Field Notes:								

Includes labor cost. Insulate the first 6 feet of hot and cold water pipe from water heater. Use pipe wrap with a R-value of at least 2. Cover elbows, unions, and other fittings to the same thickness as pipe. All corners must be Cut properly. Keep pipe insulation 6 inches away from single wall vent pipe and 1 inch away from Type B vent.  Interior diameter of pipe sleeve must match exterior diameter of pipe. Fasten with zip ties, tape, or other approved method. Refer to Appendix A- Standards for Weatherization Materials and Tennessee Weatherization Field Guide.  Estimated  Actual									
					Estimated			Actual	
#	Material / Labor	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total
1	Insulation	DWH Pipe Insulation	Each	1					
2	Labor	DWH Pipe Insulation	Each	1					
c	Other Detail								
Γ		]			] [				
L		J [		lleeeur	e Sub Total:	<u> </u>	]	Sub Total:	
			•	weasur	e Sub rotal.		,	oub rotar.	

Components

**Measure 12 DWH Pipe Insulation** 

weasu	6 12 DAA	H Tank Insulation			Compone	110			-
Comme	nt								
	insulati heater already least 2	neaters should be re-insu on blanket unless water label gives specific instru insulated. Keep insulation inches away from gas va on below the burner acce	ctions not t on at lve and bu	to insu	late or the	water hea	ter is		
	panel . vents th the ma water h	Flammable Vapor Ignition at must be left open. Following the following t	n Resistan low vhen instal unit.	ling ins	sulation bla	nkets on	(FVIR)		
	insulate heaters thermore plates of bottom top. The relief value of the top relief value.	e the tops of gas fired walk to avoid obstructing drates and heating element or cut the blanket at these and the sides but not the is creates a flap that remarke and discharge line. On the water heater with alve. Install three zip tie strom the top 2nd in the Microm the top 2nd in the top 2nd	er diverter. Naccess locations. ains closed over insulation itraps	//ark th Wher I in pla	e blanket to you cut th ce. Don't c	o locate the blanket	ne , cut th	ne	
	1500 11	om the top znd in the wife	uule, sra- t	) HOII	Estimate	d		Actual	
Materia	I/Labor	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total
Insulat	ion	DWH Tank Insulation	Each	1					
Labor		DWH Tank Insulation	Each	1					
Other Det	ail						_		
			i	Measur	e Sub Total:		.]	Sub Total:	
Field No	otes:								
Field No	otes:								
Field No	otes:								
Field No	otes:								
Field No	otes:								
Field No	otes:								
Field No	otes:								

Measure 14 Tune Cooling System					Componen	its		1	Inspected
С	DO NOT	BID MEASURE BID MEASURE BID MEASURE BID MEASURE							
					Estimated	1		Actual	-
#	Material / Labor	Description / Comment	Units	Qty	<b>Unit Cost</b>	Total	Qty	Unit Cost	Total
1	Cooling Equipmen	Cooling system tune up	Each	1					
2	Labor	Cooling system tune up	Each	1					
C	Other Detail								
				Measur	e Sub Total: [			Sub Total:	
	Field Notes:								

	and ha setting Contra premis technic docum numbe Weath	ral). Deliver and install new andles are on the appropriate of the refrigerator and selector to remove all packagines. Refrigerant charge much before refrigerator goe entation from the certified or and landfill disposal certified rerization Materials and Ter Clean Air Act USC Title 42.	te side. P t the temp ng materia st be rem es to certif technician fication. F nnessee \	rovide peraturals and oved a fied lar with the Refer to Weathe	client educa re controls a d old refrigera and reclaimed dfill. Must p echnician ce o Appendix A erization Fiel	ation on to ppropria ator from d by a ce provide wertificatio - Standa d Guide.	he tely. Prtified Pritten n licens ards for . Refer	e	
					Estimated			Actual	
#	Material / Labor	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total
1	Refrigerators	Refrigerator Replacement 18 cubic ft.	Each	1					
1	Labor	Installation Labor	Each	1					
O	ther Detail	_							
									***************************************
				Measur	e Sub Total:		] ;	Sub Total:	
	Field Notes:								

Kenmore or equivalent (must submit equivalent to Housing Director for

Components

Measure 15 Refrigerator Replacement

**Comment** Refrigerator

Measu	Measure 16 Fix Improper Venting (Clothes Dryer)			)	Componen		Inspected		
Comme	protrudir Must be Attachm	ents installed with dampering through pipe. vented to outside of homent A- Standards for Wearization Field Guide.	e. No cha	anges :	allowed. Ref	er to			
					Estimated			Actual	
# Materi	al / Labor	Description / Comment	Units	Qty	Unit Cost	Total	Qty	Unit Cost	Total
1 Health	n and Safety	Dryer Vent w/ Metal Piping (upto 15' in length)	Each	1					
2 Labor		Labor	Each	1					
Other De	otail								
								l	
				Measur	e Sub Total:		] :	Sub Total:	
Field N	lotes:								
***************************************			Work Or	der Gra	nd Total:		Grand	d Total:	

Site Diagram

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Client Name:	
Client ID:	
Alt. Client ID:	